

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,303	04/27/2001	Sharon Barkai	Sheer 4	1201

24505 7590 08/26/2004

DANIEL J SWIRSKY
PO BOX 2345
BEIT SHEMESH, 99544
ISRAEL

EXAMINER

CHANKONG, DOHM

ART UNIT	PAPER NUMBER
----------	--------------

2152

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,303

Applicant(s)

BARKAI ET AL.

Examiner

Dohm Chankong

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 10-12, 15, 17 and 21-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 14 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-8/01, 8-2/03, 9
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2152

DETAILED ACTION

1> Claims 1-25 are presented for examination.

2> *Election/Restrictions*

- 3> Restriction to one of the following inventions is required under 35 U.S.C. 121:
- a. [Group 1] Claims 1-9, 13, 14 and 18-20 are drawn to network management, transmission of tasks and task requests, classified in class 709, subclass 225.
 - b. [Group 2] Claims 10, 11, 12, 15 and 17 are drawn to the processing of network events and network modelling, classified in class 719, subclass 318.
 - c. [Group 3] Claims 21 and 22 are drawn to agents, task operations and dependency and peer links, classified in class 719, subclass 317.
 - d. [Group 4] Claims 23 and 24 are drawn to network mapping, classified in class 345, subclass 734.
 - e. [Group 5] Claims 25 is drawn to network monitoring, classified in class 709, subclass 224.

The inventions are distinct, each from the other because of the following reasons: In the instant case, Group 1 has separate utility such as in a system lacking event processing; the task operations and dependency and peer links; the network mapping; the network monitoring, particulars. Group 2 has separate utility such as in a system lacking the task operations and dependency and peer links; the network mapping; and the network monitoring, particulars. Group 3 has separate utility such as in a system lacking the network

Art Unit: 2152

mapping; and the network monitoring, particulars. Group 4 has separate utility such as in a system lacking the network monitoring, instrumentation manager, particulars. Group 5 refers to network monitoring with the use of an instrumentation manager and collector element. See MPEP § 806.05(d).

4> Because these inventions are distinct for the reasons given above and have acquired a separate status in the art shown by their different classification, restriction for examination purposes as indicated is proper.

5> Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups 2-5, restriction for examination purposes as indicated is proper.

6> During a telephone conversation with Daniel Swirsky on 8.4.2004 a provisional election was made without traverse to prosecute Group I, claims 1-9, 13, 14, and 18-20. Affirmation of this election must be made by applicant in replying to this Office action. Claim 10-12, 15-17 and 21-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

7> The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2152

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8> Claims 1-7, 13 and 18-20 are rejected under 35 U.S.C 102(b) as being anticipated over Fehskens et al, U.S Patent No. 5,832,224 [“Fehskens”].

9> As to claim 1, Fehskens discloses a network management unit for managing a network that includes a plurality of network elements coupled by communication links [abstract], the management unit comprising:

a warehouse module, the warehouse module operatively coupled to at least one network element, the warehouse module adapted to interact with the network element to facilitate data retrieval and network element operation control [abstract | column 3 <lines 52-67>];

an agents module, the agents module modeling functional operation of at least one network element that is in communication with the management unit, the agents module operatively coupled to the warehouse module to facilitate communication with the associated network element, the agents module adapted to transmit commands to the warehouse module to facilitate service requests [column 14 <lines 10-44> where: the access module is equivalent in functionality (performing the same steps) of the claimed agents module]; and

a presentation module, the presentation module facilitating local implementation of task requests from external management applications, the presentation module communicating with the agents module to transmit service requests to the agents module in accordance with the task requests [column 8 <lines 31-34> | column 9 <lines 29-50 and lines 63-

Art Unit: 2152

65> where: a functional module is equivalent in functionality to the claimed presentation module; the operator and presentation module are equivalent to external management applications and the access module is equivalent to the claimed agents module].

10> As to claim 2, Fehskens discloses the management unit of claim 1, further comprising an application module, the application module adapted to facilitate the transmission of task requests from external management applications to the management unit [column 3 <lines 30-36> | column 8 <lines 12-30> where: the presentation module is equivalent in functionality to the claimed application mod and the presentation device is comparable to an external management app].

11> As to claim 3, Fehskens discloses the management unit of claim 2, wherein the application module comprises:

a session manager to initiate and control a session with the presentation module [column 7 <lines 49-52> | column 8 <lines 5-12> where: functional modules are equivalent to the claimed presentation module];

an authentication manager to facilitate security clearance with the presentation module [column 28 <lines 21-27> | column 29 <lines 21-24 and 54-59>]; and

a plurality of available service routines corresponding to services available from the presentation module [column 8 <lines 5-41>].

Art Unit: 2152

12> As to claim 4, Fehskens discloses the management unit of claim 2, further comprising a shell interface for facilitating communication between the application module and external management applications [column 3 <lines 26-42> | column 8 <lines 20-30>].

13> As to claim 5, Fehskens discloses the management unit of claim 5, wherein the agents module comprises:

an investigation component, the investigation component adapted to initiate and configure device components for the agents module [column 9 <line 66> to column 10 <line 12>];

a plurality of device components, each device component modeling at least one network element function <column 17 <lines 16-52> where: the management module is equivalent to the agents module and the definitions for the global and subordinate entities is equivalent to the claimed device components];

a configuration component, the configuration component adapted to facilitate the command execution by device component operations in response to receiving commands from the presentation module [column 9 <line 63> to column 10 <line 12>]; and

a network element translator, the network element translator facilitating the communication between device components and the warehouse module so as to facilitate data translation between the device components and the warehouse module [column 3 <lines 1-3> | column 10 <lines 13-18>].

Art Unit: 2152

14> As to claim 6, Fehskens discloses the management unit of claim 1, wherein the warehouse module comprises a registry and a plurality of collector modules [column 3 <lines 52-60> | column 4 <lines 12-30> where: the management-related commands is equivalent to collector modules and the data recorder is equivalent to a registry].

15> As to claim 13, Fehskens discloses a method for executing a network task in a communication network that includes a plurality of network elements operatively coupled by communication links and a management unit associated with each network element, comprising:

receiving task request data into a first management unit [column 2 <lines 2-3> | column 7 <line 64> to column 8 <line 3> | column 9 <lines 49-56> where: the combination of control modules (functional and access) are equivalent to a management unit];

determining wheter a portion of the task is applicable to the first management unit [column 2 <lines 3-13> | column 7 <line 64> to column 8 <line 3> | column 9 <line 66> to column 10 <line 3>];

prompting the execution of a portion of the requested task in the first management unit when a portion of the task is applicable to the first management unit [column 2 <lines 3-13> | column 9 <lines 34-43>];

determining whether all portions of the task have been prompted for [column 9 <lines 39-43 and 63-65> | column 10 <lines 3-7 and 13-24> where: the functional modules invoke the various access modules depending on the task required]; and

Art Unit: 2152

transmitting a message to at least a second management unit when all portions of the task have not been prompted for, the message including the task request data [column 12 <lines 2-25 and 42-58>].

16> As to claim 18, Fehskens discloses a method for facilitating the execution of a task, which requires end-to-end knowledge of a network, comprising:

modeling parts of the network by individual modeling components, the modeling is of at least the relationships between physical and logical functionalities and the operation of functionalities of network elements [column 15 <lines 19-39>].

transmitting commands from the modeling components to an associated network element to control the operation of the functionality [column 2 <lines 29-41> | column 10 <lines 60-67> | column 14 <lines 30-48>]; and

transmitting a plurality of messages between said modeling components to facilitate a portion of the task in each component, whereby each component communicates with associated functionality if the functionality is part of the required task, the message directed in accordance with the relationships provided by the modeling components [column 2 <lines 2-13> | column 5 <lines 12-32> | column 7 <lines 35-55> and <line 64> to column 8 <line 3> | column 11 <line 62> to column 13 <line 15>].

17> As to claim 19, Fehskens discloses the method of claim 18 wherein the task is an information query [column 2 <lines 29-32>].

Art Unit: 2152

18> As to claim 20, Fehskens discloses the method of claim 18, wherein the task is a provisioning operation [column 2 <lines 55-67>].

Claim Rejections - 35 USC § 103

19> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20> Claim 7 is rejected under 35 U.S.C 103(a) as being unpatentable over Fehskens in view of Godwin et al, U.S Patent No. 6,058,426 ["Godwin"].

21> As to claim 7, Fehskens discloses the managemetn unit of claim 1, wherein the warehouse module comprises:

a database translator to facilitate the storage and retrieval of network data and management unit configuration data [column 3 <lines 52-67> | column 4 <lines 26-30> where: information manager is equivalent to the claimed database translator];

a directory service translator to facilitate the resolution of addresses for network elements and external systems [column 5 <lines 2-15> | column 6 <lines 10-19>];

a registry to facilitate the registration of the agents module for network element data [column 4 <lines 12-30>]; and

a plurality of collectors to communicate with network elements [column 3 <lines 52-

Art Unit: 2152

60>].

Fehskens does not disclose a message queue to facilitate the transmission of messages between management unit modules residing in remote management units.

22> Godwin discloses a message queue to facilitate the transmission of messages between management unit modules residing in remote management units. It would have been obvious to one of ordinary skill in the art to implement queues to store the requests transmitted between management unit modules to store requests that are pending later action [column 7 <lines 38-41>]. One would have been motivated to do this implementation because Fehskens discloses checking requests to see if they should be acted upon immediately or at a later time [(Fehskens) column 10 <lines 23-28> | column 12 <lines 2-10>].

23> Claim 8 is rejected under 35 U.S.C 103(a) as being unpatentable over Fehskens and Godwin, in further view of Stilwel et al, U.S Patent No. 5,907,696 ["Stilwel"].

24> As to claim 8, Fehskens does disclose the use of a plurality of collectors [column 3 <lines 52-60>] but does not specifically disclose that the plurality of collectors comprises an SNMP collector.

25> Stilwel teaches it is well known in the art to implement an SNMP collector in a network management unit to allow the unit to handle management of devices on a computer network [column 1 <lines 13-28>]. It would have been obvious to one of ordinary skill in the

Art Unit: 2152

art at the time the invention was made to implement one of Fehsken's plurality of collectors as an SNMP collector to increase the utility of the management unit by allowing it to manage devices on a computer network.

26> Claim 9 is rejected under 35 U.S.C 103(a) as being unpatentable over Fehskens and Godwin, in further view of Packer, U.S Patent No. 6,018,516.

27> As to claim 9, Fehskens does disclose the use of a plurality of collectors [column 3 <lines 52-60>] but does not specifically disclose that the plurality of collectors comprises a Telnet collector.

28> Packer teaches it is well known in the art to implement Telnet over a network for providing standard remote terminal connection [column 6 <lines 16-19>]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement one of Fehsken's collectors as a Telnet collector to allow the collector to act as a terminal emulator and communicate with network elements over TCP.

29> Claim 14 is rejected under 35 U.S.C 103(a) as being unpatentable over Fehskens in view of Hsieh et al, U.S Patent No. 6,192,034 ["Hsieh"].

30> As to claim 14, Fehskens discloses a method for facilitating an information request in a management network that includes a plurality of management units, comprising:

Art Unit: 2152

receiving an information request from an external application into a first management unit [column 1 <lines 64-67> and column 2 <lines 2-3>];

processing the information request in an application server, the processing facilitating at least the identification of management unit services associated with the information request [column 2 <lines 3-13> and column 7 <lines 7-12> where: the control modules are each located on a server];

initiating a local task in the first management unit to facilitate a first management unit service corresponding to the information request [column 2 <lines 3-13>];

transmitting a message from the local task in a second management unit, the message including at least the information request [column 12 <lines 2-25 and 42-58>];

initiating a local task in the second management unit to facilitate a second management unit service corresponding to the information request [column 8 <lines 45-54> | column 9 <lines 47-50>];

responding to the message by transmitting a message from the second management unit to the first management unit, the response including result data for the local task [column 8 <lines 52-60> | column 10 <lines 47-50>];

aggregating responses from remote management units in the first management unit application server [column 11 <lines 5-11>]; and

transmitting a reply to the information request to the external application [column 12 <lines 22-25>].

Fehskens does not specifically disclose that the second management unit has a remote application server or transmitting messages from management units between servers.

Art Unit: 2152

31> Hsieh teaches a network management method wherein the management units are dispersed across a network and each contain servers for the purposes of communicating information between peer management units [Figure 2 | Figure 4 <items 100, 102, 108> | column 4 <lines 22-30> where: the sub-nodes are comparable to claimed management unit]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Fehsken's management units as Hsieh's units with server functionality to allow the units to be spread across a WAN and permit network communications among the units to enhance real-time management of network devices [column 1 <lines 38-43> | column 2 <lines 7-14>].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art in regards to network management:

U.S Patent No. 6073162 to Johannsen et al;

U.S Patent No. 6105061 to Nakai;

U.S Patent No. 6487590 to Foley et al.

Art Unit: 2152

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (703)305-8864.

The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100